

STATE OF MISSOURI
MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM

INJECTION WELL PERMIT APPLICATION
(TO DRILL, DEEPEN, PLUG BACK, OR CONVERT AN EXISTING WELL)

RECEIVED

FORM OGC-31

JUL 02 2014

Mo Oil & Gas Council

NOTE ►		Permit approval for drilling only, not injection. Approval or denial for injection determined after Mechanical Integrity Test results reviewed and official notification given.								
<input checked="" type="checkbox"/> APPLICATION TO DRILL		<input type="checkbox"/> DEEPEN		<input type="checkbox"/> PLUG BACK		<input type="checkbox"/> FOR AN OIL WELL		<input type="checkbox"/> OR GAS WELL		
NAME OF COMPANY OR OPERATOR								DATE		
Kansas Resource Exploration and Development, LLC								06/24/2014		
ADDRESS				CITY		STATE		ZIP CODE		
9393 West 110th St., Ste #500				Overland Park		KS		66210		
DESCRIPTION OF WELL AND LEASE										
NAME OF LEASE				WELL NUMBER		ELEVATION (GROUND)				
Belton Unit				RW-15		1079'				
WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)										
1300 ft. from <input checked="" type="checkbox"/> North <input type="checkbox"/> South section line				2265 ft. from <input checked="" type="checkbox"/> East <input type="checkbox"/> West section line						
WELL LOCATION				LATITUDE		LONGITUDE		COUNTY		
Sec. 16 Township 46 North Range 33 <input type="checkbox"/> East <input checked="" type="checkbox"/> West				N38°48'49.11"		W94°34'29.80"		Cass		
NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE 1320 FEET										
DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED – FOR WELL ON THE SAME LEASE 15 FEET										
PROPOSED DEPTH	ROTARY OR CABLE TOOLS		DRILLING CONTRACTOR, NAME AND ADDRESS				APPROX. DATE WORK WILL START			
700' <i>3820</i>	Rotary		Evans Energy Development, Inc.				06/24/2014			
NUMBER OF ACRES IN LEASE	NUMBER OF WELLS ON LEASE INCLUDING THIS WELL, COMPLETED IN OR DRILLING TO THIS RESERVOIR 206									
560	NUMBER OF ABANDONED WELLS ON LEASE 0									
IF LEASE PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED?					NO. OF WELLS		PRODUCING 70			
NAME <u>DE Exploration, Inc.</u>							INJECTION 136			
ADDRESS <u>4595 Highway K33, Wellsville, KS 66092</u>							INACTIVE 0			
NUMBER OF ABANDONED WELLS ON LEASE 0							ABANDONED 0			
STATUS OF BOND		<input type="checkbox"/> SINGLE WELL AMOUNT \$ _____			<input checked="" type="checkbox"/> BLANKET BOND AMOUNT \$ <u>280,000</u>			<input checked="" type="checkbox"/> ON FILE <input type="checkbox"/> ATTACHED		
REMARKS: (IF THIS IS AN APPLICATION TO DEEPEN OR PLUG BACK, BRIEFLY DESCRIBE WORK TO BE DONE, GIVING PRESENT PRODUCING/INJECTION ZONE AND EXPECTED NEW INJECTION ZONE; USE BACK OF FORM IF NEEDED)										
This well has injected for years but never actually had a proper injection permit until now.										
PROPOSED CASING PROGRAM				APPROVED CASING – TO BE FILLED IN BY STATE GEOLOGIST						
AMOUNT	SIZE	WT/FT	CEM.	AMOUNT	SIZE	WT/FT	CEM.			
20'	8 5/8"	20	10 sks	<i>20'</i>	<i>8 5/8</i>	<i>20</i>	<i>Fall leg</i>			
700'	4 1/2"	9.5	100 sks	<i>700'</i>	<i>4 1/2</i>	<i>9.5</i>	<i>Fall leg</i>			
I, the Undersigned, state that I am the _____ of the _____ (Company), and that I am authorized by said company to make this report, and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct, and complete to the best of my knowledge.										
SIGNATURE				DATE <u>6/24/14</u>						
PERMIT NUMBER <u>20830</u>				<input type="checkbox"/> DRILLER'S LOG REQUIRED <input type="checkbox"/> CORE ANALYSIS REQUIRED IF RUN <input type="checkbox"/> SAMPLES REQUIRED <input checked="" type="checkbox"/> SAMPLES NOT REQUIRED <input type="checkbox"/> WATER SAMPLES REQUIRED AT _____						
APPROVED DATE <u>7-29-14</u>				<input type="checkbox"/> E-LOGS REQUIRED IF RUN <input type="checkbox"/> DRILL SYSTEM TEST INFO REQUIRED IF RUN						
APPROVED BY										
NOTE ►		THIS PERMIT NOT TRANSFERABLE TO ANY OTHER PERSON OR TO ANY OTHER LOCATION. APPROVAL OF THIS PERMIT BY THE OIL AND GAS COUNCIL DOES NOT CONSTITUTE ENDORSEMENT OF THE GEOLOGIC MERITS OF THE PROPOSED WELL NOR ENDORSEMENT OF THE QUALIFICATIONS OF THE PERMITTEE								

I, Leech of the Utah (Company), confirm that an approved drilling permit has been obtained by the owner of this well. Council approval of this permit will be shown on this form by presence of a permit number and signature of authorized council representative.

DRILLER'S SIGNATURE
DATE
4/24/11**PROPOSED OPERATIONS DATA**

PROPOSED AVERAGE DAILY INJECTION,	PRESSURE <u>300</u> PSIG, RATE <u>.035</u> BPD/GPM, VOLUME <u>50</u> BBL/GAL
APPROVED AVERAGE DAILY INJECTION, (TO BE FILLED IN BY STATE GEOLOGIST)	PRESSURE <u>300</u> PSIG, RATE <u>.035</u> BPD/GPM, VOLUME <u>50</u> BBL/GAL
PROPOSED MAXIMUM DAILY INJECTION,	PRESSURE <u>300</u> PSIG, RATE <u>.035</u> BPD/GPM, VOLUME <u>50</u> BBL/GAL
APPROVED MAXIMUM DAILY INJECTION, (TO BE FILLED IN BY STATE GEOLOGIST)	PRESSURE <u>300</u> PSIG, RATE <u>.035</u> BPD/GPM, VOLUME <u>50</u> BBL/GAL

ESTIMATED FRACTURE PRESSURE GRADIENT OF INJECTION ZONE 0.4 PSI/FOOTDESCRIBE THE SOURCE OF THE INJECTION FLUID Squirrel return water and rural water**NOTE ►** SUBMIT AN APPROPRIATE ANALYSIS OF THE INJECTION FLUID. (SUBMIT ON SEPARATE SHEET)

DESCRIBE THE COMPATIBILITY OF THE PROPOSED INJECTION FLUID WITH THAT OF THE RECEIVING FORMATIONS, INCLUDING TOTAL DISSOLVED SOLIDS COMPARISONS

There is currently an active squirrel sandstone water floods, using return water mixed with rural water. The current and past operator(s) has used these injection fluids since the water flood began with no problems.

GIVE AN ACCURATE DESCRIPTION OF THE INJECTION ZONE INCLUDING LITHOLOGIC DESCRIPTIONS, GEOLOGIC NAME, THICKNESS, DEPTH, POROSITY, AND PERMEABILITY.

The depth of the squirrel sandstone on the lease is approximately 550' to 600', with a thickness of approximately 50'. Based on the information received on the Belton Unit lease, the average porosity of the squirrel sandstone is 22% with an average permeability of 270.8 millidarcy.

Please see the attached documents containing information on the lithologic description and geologic name of the injection zone.

GIVE AN ACCURATE DESCRIPTION OF THE CONFINING ZONES INCLUDING LITHOLOGIC DESCRIPTION, GEOLOGIC NAME, THICKNESS, DEPTH, POROSITY, AND PERMEABILITY.

The confining layers of the Squirrel Sandstone consist of two prominent shales which are the Labette shale, ranging from 30-50 feet thick located approximately at 525' and the Lagonda shale which ranges from 20-40 feet thick, located approximately at 600'. These shales have less than 5% porosity and contain very little to no permeability. According to "The Geology of North America, Vol. O-2, Hydrogeology, The Geological Society of America, 1988" written by Stanley N. Davis, "the intergranular permeability of shale is very low, as reflected in values given for samples 10 and 17 in Table 2. Most reliable laboratory measurements of the permeability of shale range between 10 -1 and 10 -4 millidarcys." Please see the attached Table 2 for further description.

SUBMIT ALL AVAILABLE LOGGING AND TESTING DATA ON THE WELL

GIVE A DETAILED DESCRIPTION OF ANY WELL NEEDING CORRECTIVE ACTION THAT PENETRATES THE INJECTION ZONE IN THE AREA OF REVIEW (1/2 MILE RADIUS AROUND WELL). INCLUDE THE REASON FOR AND PROPOSED CORRECTIVE ACTION.

No corrective action needed.

TABLE 2. REPRESENTATIVE POROSITIES AND PERMEABILITIES OF SANDSTONE AND SHALE
WITH VALUES FOR SALT AND COAL GIVEN FOR COMPARISON

Lithology	Formation or Geologic Age	Location	Porosity (%)	Permeability (md)	Field (F) or Laboratory (L)	Reference
1. Sandstone	Paskapoo	Alberta	—	4285	F	Garven (1982)
2. Sandstone	Paskapoo	Alberta	—	2640	F	Garven (1982)
3. Shale (fractured)	Paskapoo	Alberta	—	3230	F	Garven (1982)
4. Shale (fractured)	Paskapoo	Alberta	—	988	F	Garven (1982)
5. Mudstone	Cenozoic	North Dakota	—	4.6×10^{-2}	F	Garven (1982)
6. Coal	Cenozoic	North Dakota	—	334	F	Rehm and others (1980)
7. Salt*	Permian	Texas	—	9.61×10^3 (horizontal) 9.61×10^4 (vertical)	—	Rehm and others (1980) INTERA (1986)
8. Shale*	Wolfcamp	Texas	—	9.61×10^5 (horizontal) 9.61×10^6 (vertical)	—	INTERA (1986)
9. Sandstone	—	—	—	0.15 (horizontal) 47.9 (vertical)	L	Young and others (1964)
10. Siltstone	—	—	—	2.4×10^{-7} (vertical)	L	Young and others (1964)
11. Sandstone	Wilcox	—	—	4740	F	Slaughter and others (1983)
12. Sandstone	Navajo	Utah	—	3.8	F	Woodward-Clyde (1984)
13. Sandstone	Dakota	Utah	—	10.9	F	Woodward-Clyde (1984)
14. Shale (fractured)*	Monterey	California	21	2690	L	Isherwood (1981)
15. Shale (fractured)	Green River	—	—	0.32	F	Isherwood (1981)
16. Shale (fractured, oil shale)	Green River	—	8	2.07	F	Isherwood (1981)
17. Shale	Graneros	Kansas	11.6	4.7×10^{-5}	L	Isherwood (1981)
18. Sandstone	Bradford	—	14.8	2.7	L	Davis and DeWiest (1966)
19. Sandstone	Berea	—	19	383	L	Davis and DeWiest (1966)
20. Sandstone	Repeta	—	19.1	36	L	Davis and DeWiest (1966)
21. Sandstone [‡]	Cambrian	—	11.2	—	L	Manger (1963)
22. Sandstone [‡]	Pennsylvanian	—	17.4	—	L	Manger (1963)

*Values used in ground-water model.

[†]Average of 56 samples within an interval of 39 m. Porosity range 14% to 29%. Permeability range 89 md to 16,500 md.

[‡]Average of 16 samples.

[§]Average of 587 samples.

techniques may introduce large variations in the values reported in Table 2, these variations are still much smaller than the fundamental variations related to lithology and structure.

Studies of lightly cemented sandstones have shown that, like their nonindurated counterparts, grain size plays a dominant role in determining the permeability of the rock (Johnson and Greenkorn, 1963). Very roughly, the permeability increases as the square of the grain size. This simple relationship tends to break down as cementing and compaction decrease the pore size. For medium-grained sandstones with porosities between 0.15 and 0.25, a very rough correlation also exists between porosity and permeability. This correlation is actually quite good for some data sets, particularly if it is based on measurements of a single, poorly lithified sandstone unit that has a rather uniform grain size. An example of one of the numerous equations relating porosity to permeability is given below:

$$k = D^2 \phi^{3.5/5.6C}$$

in which k is permeability, D is an effective grain size, ϕ is porosity, and C is a dimensionless constant. This equation was given by Dullien (1979). Most similar equations also show an exponential relation between porosity and permeability.

As the porosity of a sandstone decreases, particularly below 0.15, the permeability depends more on the presence of through-going secondary fractures rather than on the original porosity within the rock. As porosity decreases below 0.05, permeability is almost entirely dependent on the presence of fractures. Thus, in the case of a quartz sandstone with a brittle cement that is in a highly fractured zone, the present permeability may exceed the original permeability of the antecedent sand (Fig. 2). In general, the hydrogeology of all highly indurated sediments is profoundly affected by fractures, and the fractures account for very large local permeabilities (Hunton, 1986; Hunton and Lundy, 1979).

If a large number of permeability measurements are made of a single stratigraphic unit, the resulting values appear to have a log-normal statistical distribution (Fig. 3; Davis, 1969). The ex-

Re: Benjamin Lease Injection Well Applications

In reference to your concern about the confining layers of the Squirrel sandstone in the Belton area I wish to present the following information concerning the reservoir at Belton which has become known from our operations and as provided by our consulting engineer.

The reservoir(s) in the Belton are actually a stacked series of sand bodies, point bars, consisting of the Englevale sandstone in the Labette shale and three or more sand zones in the Squirrel section of the Cherokee Group. The Fort Scott section is missing, evidently removed by erosion during the time of the Englevale development. In some cases the Englevale is in contact with the Squirrel and may appear as one vertically continuous reservoir. Consequently, the upper boundary of the Englevale is the Labette shale - the upper confining layer.

The Squirrel sandstones exhibit lateral facies changes from sandstone to shaly sand to sandy shale to shale. Vertically, the change from sand to shale may be very abrupt, especially in the base of the paleo-channel. The confining layers below the Squirrel sandstone will be shale of the Lagonda formation of the Cherokee.

We are a little concerned about applying limitations to porosity values of the confining zones since shale is typically exhibits porosity of about 20%, but due to their sedimentary nature they are impervious, thus they provide an excellent seal. Our concern in developing an injection program is for proper casing and cementing design and wellbore stimulation within zone. At Belton, our experience is that fractures are not going "out of zone". This is because the boundary layers are impervious and fractures are created in sandstone at a lower pressure than in shale, thus staying within the stimulated zone. That is, the fracture treating pressures in the sandstone are not sufficient to fracture the overlying shale. Waterflood operations will never experience pressures utilized during hydraulic fracturing, thus we are highly confident of the geologic integrity.

Our consulting engineer reviewed the policy of several other oil producing states and could not find any concern about confining zones in their secondary recovery regulations. In addition, he reviewed several water flooding engineering texts and could find no mention of consideration of confining zones in any of the texts.

With the many years of successful operations in Western Missouri and adjacent areas of Kansas, where hundreds of water floods have been performed in the Squirrel sandstone, the confining shales have proven to be an adequate seal for waterflood operations. Thus, it is our request that this aspect of the approval process be accepted, based upon the above stated reasons and, especially, the history of successful operations within this scenario.

Very truly yours,

Bradley Kramer

minimum stress at the borehole, and must also overcome the tensile strength of the rock. This can be expressed as follows:

$$(P_i)_c = 3\bar{\sigma}_{s_1} - \sigma_{s_2} + S_t + P \quad (5)$$

where:

$(P_i)_c$ = borehole pressure required to initiate vertical fracture

$\bar{\sigma}_{s_1}$ = maximum principal horizontal matrix stress

σ_{s_2} = minimum principal horizontal matrix stress

S_t = horizontal tensile strength of rock

P = formation pore pressure

Penetrating Fluid Reduces Breakdown Pressure—A penetrating fluid increases the area over which pressurized fluid contacts the formation and can reduce the pressure necessary to initiate fracturing.

Laboratory and theoretical work by Fairhurst and Haimson²¹ provides a basis for estimation of the magnitude of reduction in openhole. Generally reduction may be on the order of 25 to 40% in openhole.

Perforation Density and Orientation—Recent laboratory work in cased hole shows that breakdown or frac initiation pressure is affected by the number and arrangement of perforations.²²

The existence of casing and the arrangement of perforations have little effect on created fracture orientation, but breakdown pressure is reduced by increased number of perforations. The practice of perforating with all shots in a vertical line on one side of the casing, Figure 8-6 significantly increases

breakdown pressure if the perforations happen to be oriented 90° to the azimuth of the vertical fracture plane. Orientation of perforations does not affect azimuth of the vertical fracture however.

Fracture Propagation

Once the fracture has been created and invaded by pressurized fluid, the stress concentration near the wellbore is reduced, and the hydraulic pressure required to extend the fracture must merely overcome the component of the undisturbed stress field normal to the plane of the fracture.

Measuring Propagation Pressure and Frac Gradient—The fracture propagation pressure (and frac gradient) can be obtained during the fracturing operation by recording the wellhead pressure immediately after the pumps are shut down following injection into the fracture (Figure 8-7). Since the frac gradient is increased by increased pore pressure, this measurement should be made before the pore pressure is significantly raised by the injected frac fluid.

Wellhead instantaneous shut-in pressure, corrected to the hole bottom by adding the hydrostatic pressure of the wellbore fluid column, is the fracture propagation pressure. Fracture gradient is the fracture propagation pressure divided by the formation depth.

Measuring Rock Matrix Stress—The minimum horizontal rock matrix stress is then:

$$\bar{\sigma}_{s_2} = \text{propagation pressure} - \text{pore pressure}$$

This stress is of particular interest because it is the stress which propping agents must withstand in order to hold the fracture open. In actual practice pore pressure can be equated to static reservoir pressure provided fracture propagation pressure is measured before significant frac fluid is injected to raise the pore pressure level near the wellbore.

It should be noted that proppant in the critical area near the wellbore is subjected to more stress than that further away due to lower pore pressure near the wellbore in the producing process, Figure 8-8. This effect may be significant at high drawdown pressures.

Fracture Orientation

Fracture Propagates Perpendicular to Smallest Stress—Rocks fracture in a plane perpendicular to

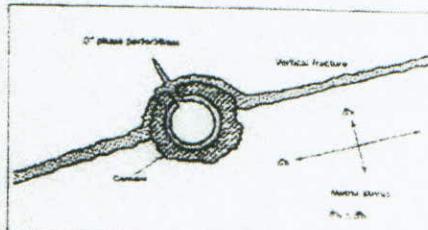


FIG. 8-6—Orientation of perforation vs. least horizontal matrix stress. Condition resulting in highest breakdown pressure.

Proposed Injection Volumes

Injection volumes are determined by using analogy from previous and current squirrel sandstone water floods that contain similar reservoir characteristics. In the case of the Benjamin lease we plan to inject 1 barrel of water for every 1 net foot of oil bearing sandstone, assuming this rate does not exceed the maximum approved injection pressure. Depending on the duration and impact of the surrounding wells, some injection wells may ultimately inject up to 3 barrels of water for every 1 net foot of oil bearing sandstone.

Due to the permeability variance of the reservoir we typically will not exceed 15' of perforations per water injection well.

Example;

Year 1

15' of perforations x 1 bbl/ft = 15 BPD injection rate

Year 2

15' of perforations x 2 bbl/ft = 30 BPD injection rate

Year 3 through Year 20

15' of perforations x 3 bbl/ft = 45 BPD injection rate

We typically do not exceed 3 bbl/ft injection rate per day per well, which is why we are requesting 50 BPD rate.

Benjamin Lease, Cass County, Missouri

Re: Closure Pressure

Attached is a reproduction from "Production Operations, Vol. 2" by Allen and Roberts describing the fracturing pressures in a reservoir.

The fracture propagation pressure is approximately the same as the closure pressure, although slightly higher. This difference is less significant in low pressure reservoirs such as the ones in the Cherokee Basin, consequently, they are considered to be the same. The fracture propagation pressure is the same as the instantaneous shut-in pressure (ISIP) experienced upon cessation of a hydraulic fracture treatment. The ISIP from a fracture procedure is the surface pressure measurement. Bottom-hole ISIP must be calculated by adding the surface ISIP and the product of the depth to mid-perforations (feet) and the pressure gradient of the fluid in the wellbore (psi/foot). For fresh water the fluid gradient is 0.434 psi/foot. Since the fluid in fracture operations is more dense than fresh water most engineers estimate the bottom-hole ISIP with a higher gradient. The state of Oklahoma uses a gradient of 0.50 psi/foot.

Listed below is a group of wells ISIP (Initial Shut In Pressure) that were recently stimulated on the Benjamin Lease in Section 9, Township 46N, Range 33 West, Cass County, Missouri. Please see the attached "fracture treatment reports" for verification of ISIP in the following wells.

<u>Lease</u>	<u>Well</u>	<u>ISIP (Surface)</u>
Benjamin	KR-10	575#
Benjamin	KR-14	500#
Benjamin	KR-15	525#
Benjamin	KR-20	500#
Benjamin	KR-26	450#
Benjamin	KR-27	550#
Benjamin	KR-29	475#
Benjamin	KR-31	450#
Benjamin	KR-33	550#

The fracture propagation pressure is the pressure in which the aperture of the existing fractures can begin to be opened. An increase in injection rate is noted at this point on injection step-rate tests. At injection pressures at, or slightly above, the ISIP, the fractures in the immediate vicinity of the wellbore (inches) may be affected but not into the reservoir significantly. In actual injection operations of a waterflood at ISIP, fractures wouldn't be created beyond the region adjacent to the wellbore because of; 1) fluid leak-off into the formation, 2) the injection of a low viscosity fluid, and 3) the extremely low injection rates - far less than what is necessary to create a fracture.



CONSOLIDATED
Oil Well Services, LLC

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

TREATMENT REPORT
FRAC & ACID

TICKET NUMBER 54764

FIELD TICKET REF # 98125

LOCATION Thayer

FOREMAN Brett Bushy

DATE	CUSTOMER #	WELL NAME & NUMBER	
12-27-12		Benjamin KR-13	
CUSTOMER		S+B Operating	
MAILING ADDRESS			
CITY	STATE	ZIP CODE	

SECTION	TOWNSHIP	RANGE	COUNTY
9	96N	33W	Cass

TRUCK #	DRIVER	TRUCK #	DRIVER
524	Tim	680T21	Stan
454	Tony	989T19	Dwayne
522	Daniel		
612T55	Tony		
614T55	George		
623T102	Junior		

TYPE OF TREATMENT
Acid spot + frac
ICL Salt, Boreite + Breaker
Acid inhibitor - StimOil

CASING SIZE	TOTAL DEPTH
CASING WEIGHT	PLUG DEPTH
TUBING SIZE <u>27/8x8EUE</u>	PACKER DEPTH
TUBING WEIGHT	OPEN HOLE
PERFS & FORMATION	
<u>555-68-501-91</u>	(49) Squawker

STAGE	BBL'S PUMPED	INJ RATE	PROPPANT PPG	SAND / STAGE	PSI	
PAD	20	13-16				
16-30		16				BREAKDOWN 1000
12-20		16				START PRESSURE
12-20		16				END PRESSURE
12-20 (8+7) balls		16		1,000#		BALL OFF PRESS
12-20						ROCK SALT PRESS
12-20						ISIP 375
12-20 (5)+(5) balls				1,500#		5 MIN
12-20						10 MIN
12-20						15 MIN
FLUSH CASING	5			1,000#		MIN RATE
Release balls to T.D.						MAX RATE
OVERFLUSH	10	16		4,000#		DISPLACEMENT 3,5
TOTAL BBSLS	130			SAND		

REMARKS: *held safety-procedure meeting before frac

Spiked 100 gal 15% HCl mix in pods of load 35 balls

Location 10:00AM - 10:45AM 120 miles

AUTHORIZATION _____ TITLE _____ DATE 12-27-12

Terms and Conditions are printed on reverse side.



CONSOLIDATED
Oil Well Services, LLC

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

TICKET NUMBER 54765

FIELD TICKET REF # 48125

LOCATION Thayer

FOREMAN Brett Burt

**TREATMENT REPORT
FRAC & ACID**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
12-27-12		Benjamin KR-14	9	46N	33W	Cass

CUSTOMER <i>S+B Operating</i>		
MAILING ADDRESS		
CITY	STATE	ZIP CODE

WELL DATA	
CASING SIZE	TOTAL DEPTH
CASING WEIGHT	PLUG DEPTH
TUBING SIZE <i>2 1/2</i> 8EUE	PACKER DEPTH
TUBING WEIGHT	OPEN HOLE
PERFS & FORMATION	
564-74	<i>(38) Squirrels</i>
580-22	

STAGE	BBL'S PUMPED	INJ RATE	PROPPANT PPG	SAND / STAGE	PSI	
PAD					1100	BREAKDOWN 1100
16-30	20	15.5		300 ⁴		START PRESSURE
12-20				1000 ⁴		END PRESSURE
12-20 (5) + (5)						BALL OFF PRESS
12-20						ROCK SALT PRESS
12-20					500	ISIP 500
12-20 (3) = 13 bbls				1000 ⁴	5 MIN	
12-20					1700	10 MIN
12-20						15 MIN
FLUSH CASING	5			1600 ⁴		MIN RATE
Release bbls to T.D.			TOTAL	3,500 ⁴		MAX RATE
OVERFLUSH	10	15.5 BWD			1100	DISPLACEMENT 3.4
TOTAL BBL'S	12.5					

REMARKS:

Spotted 100 gal 15% HCl acid on parts

Location 10:45 AM - 11:30 AM

120 miles

AUTHORIZATION _____

TITLE _____

DATE 12-27-12

Terms and Conditions are printed on reverse side.



CONSOLIDATED
Oil Well Services, LLC

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

TREATMENT REPORT
FRAC & ACID

3rd well

TICKET NUMBER 54766
FIELD TICKET REF # 48125
LOCATION Thayer
FOREMAN Brian Bustay

DATE	CUSTOMER #	WELL NAME & NUMBER	
12-27-12		Benjamin KR-15	
CUSTOMER			
StB Operating			
MAILING ADDRESS			
CITY	STATE	ZIP CODE	

SECTION	TOWNSHIP	RANGE	COUNTY
5	46N	33W	Ca25

TRUCK #	DRIVER	TRUCK #	DRIVER
524	Tony		
420	Tim		
522	Daniel		
69721	George		

TYPE OF TREATMENT
Acid + salt + trace
CHEMICALS
KCISUB-Bisacide-Breaker
Acid - inhibitor - stim oil

WELL DATA	
CASING SIZE	TOTAL DEPTH
CASING WEIGHT	PLUG DEPTH
TUBING SIZE <u>2 1/2 blue</u>	PACKER DEPTH
TUBING WEIGHT	OPEN HOLE
PERFS & FORMATION	
591-601 (21)	Fracture

STAGE	BBL'S PUMPED	INJ RATE	PROPPANT PPG	SAND / STAGE	PSI	
PAD						
12-30	20	15.5				BREAKDOWN 1100
12-20		12.5		500#		START PRESSURE
12-20		12.5				END PRESSURE
12-20		12.5		1,000#		BALL OFF PRESS
12-20 (4) + (3)						ROCK SALT PRESS
12-20						ISIP 525
12-20						5 MIN
12-20 + (3) =						10 MIN
12-20						15 MIN
12-20						MIN RATE
FLUSH CASING	5			1,000#		MAX RATE
Release balls to T.D.			77AL	3,000#		DISPLACEMENT 3.5
OVERFLUSH	10	12.5	5AHD			
TOTAL BBL'S						

REMARKS:

Spotted 100 gal - 15% HCl and on perfs

Location 11:30 AM - 12:00 PM

120 miles

AUTHORIZATION _____

TITLE _____

DATE 12-27-12

Terms and Conditions are printed on reverse side.



CONSOLIDATED
Oil Well Services, LLC

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

**TREATMENT REPORT
FRAC & ACID**

TICKET NUMBER 54767

FIELD TICKET REF # 48725

LOCATION Thayer

FOREMAN Brett Busby

DATE	CUSTOMER #	WELL NAME & NUMBER	
12-27-12		Benjomin KR23	
CUSTOMER			
S+B Operating			
MAILING ADDRESS			
CITY	STATE	ZIP CODE	

WELL DATA	
CASING SIZE	TOTAL DEPTH
CASING WEIGHT	PLUG DEPTH
TUBING SIZE <u>2 1/2" TRUE</u>	PACKER DEPTH
TUBING WEIGHT	OPEN HOLE
PERFS & FORMATION	
<u>611-15 (30)</u>	<u>Squirt</u>

STAGE	BBL'S PUMPED	INJ RATE	PROPPANT PPG	SAND / STAGE	PSI	
PAD	20	13.5			1150	BREAKDOWN <u>1200</u>
16-30		12.5				START PRESSURE
12-20		12.5				END PRESSURE
12-20						BALL OFF PRESS
12-20 (5) + (5) balls						ROCK SALT PRESS
12-20						ISIP <u>500</u>
12-20 (3) + (2)						5 MIN
12-20						10 MIN
12-20						15 MIN
FLUSH CASING	5					MIN RATE
Release ball to T.D.						MAX RATE
OVERFLUSH	10	13.5	TOTAL 3500# SAND			DISPLACEMENT <u>3.5</u>
TOTAL BBL'S	138					

REMARKS:

Spotted 100 gal - 15% ACI and on perfs

Location 12:00PM - 12:45PM

120 miles

AUTHORIZATION _____

TITLE _____

DATE 12-27-12

Terms and Conditions are printed on reverse side.



CONSOLIDATED
Oil Well Services, LLC

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

82nd
TREATMENT REPORT
FRAC & ACID

TICKET NUMBER 54768

FIELD TICKET REF # 48125

LOCATION Thayer

FOREMAN Brett Bustay

DATE	CUSTOMER #	WELL NAME & NUMBER	
12-27-12		Benjamin KR-26	
CUSTOMER			
MAILING ADDRESS			
CITY	STATE	ZIP CODE	

WELL DATA	
CASING SIZE	TOTAL DEPTH
CASING WEIGHT	PLUG DEPTH
TUBING SIZE <u>2 7/8" O.D.</u>	PACKER DEPTH
TUBING WEIGHT	OPEN HOLE
PERFS & FORMATION	
<u>545-53</u>	<u>Spurrels</u>
<u>573-89</u>	(5)

STAGE	BBL'S PUMPED	INJ RATE	PROPPANT PPG	SAND / STAGE	PSI	
PAD	20	15.0		700#	700	BREAKDOWN 1200
16-30		15.0		700#		START PRESSURE
12-20				1,000#	700	END PRESSURE
12-20				1,000#	1000	BALL OFF PRESS
12-20 (10) + (5)				1,000#	1000	ROCK SALT PRESS
12-20				1,000#	1000	ISIP 450
12-20				1,000#	1000	3 MIN
12-20 (5) + (5)				1,000#	1000	10 MIN
12-20 + (3)		20		1,000#	1000	15 MIN
12-20				1,000#	1000	MIN RATE
FLUSH CASING	5			1,000#	1000	MAX RATE
Release bolts + TD				1,000#	1000	DISPLACEMENT 3,4
OVERFLUSH	10	13.3	TOTAL	4,000#	750	
TOTAL BBL'S	145					

REMARKS:

Spotted 100 gal. - 17% HCl acid on pads

Location 3:00PM - 4:00PM

120 miles

AUTHORIZATION _____
TITLE _____
Terms and Conditions are printed on reverse side.

DATE 12-27-12



CONSOLIDATED
Oil Well Services, LLC

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

TICKET NUMBER 54769
FIELD TICKET REF # 48125
LOCATION Player
FOREMAN Brett Dusty

**TREATMENT REPORT
FRAC & ACID**

DATE	CUSTOMER #	WELL NAME & NUMBER		SECTION	TOWNSHIP	RANGE	COUNTY
12-27-12		Benjamin RR-27		9	46N	33W	Cass
CUSTOMER							
St B Operating							
MAILING ADDRESS							
CITY	STATE	ZIP CODE					

WELL DATA	
CASING SIZE	TOTAL DEPTH
CASING WEIGHT	PLUG DEPTH
TUBING SIZE <u>27/8 EUE</u>	PACKER DEPTH
TUBING WEIGHT	OPEN HOLE
PERFS & FORMATION	
<u>SP5-605 (42)</u>	<u>Squirted</u>

TRUCK #	DRIVER	TRUCK #	DRIVER
524	Trampis		
482	Black		
527	Daniel		

TYPE OF TREATMENT
Acid + frac
CHEMICALS
KCl/SDP - Prode - Breaker
Acid - inhibitor - stimat

STAGE	BBL'S PUMPED	INJ RATE	PROPPANT PPG	SAND / STAGE	PSI	
PAID	20	15.5			250	BREAKDOWN 1100
16-30		15.5		50#		START PRESSURE
12-20		17.5				END PRESSURE
12-20				1000#		BALL OFF PRESS
12-20 (2) + (7)						ROCK SALT PRESS
12-20						(ISIP 475)
12-20				1,000#		5 MIN
12-20 (5) + (5)						10 MIN
12-20				500#	1400	15 MIN
FLUSH GASING	5			1,000#		MIN RATE
Release ballstt D.						MAX RATE
OVER FLUSH	10	15.5	TOTAL SAND	4,000#		DISPLACEMENT 3.5
TOTAL BBL'S	140				200	

REMARKS:

Spotted 100 gal - 15% HCl acid on perf

Location 1:00PM - 1:30PM

120 miles

AUTHORIZATION _____

TITLE _____

DATE 12-27-12

Terms and Conditions are printed on reverse side.



CONSOLIDATED
Oil Well Services, LLC

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

TREATMENT REPORT
FRAC & ACID

6TH well

TICKET NUMBER 54770

FIELD TICKET REF # 481B25

LOCATION Thoyce

FOREMAN Brett Busby

DATE	CUSTOMER #	WELL NAME & NUMBER	
12-27-12		Benjamin RR-33	
CUSTOMER			
S+B Operating			
MAILING ADDRESS			
CITY	STATE	ZIP CODE	

WELL DATA	
CASING SIZE	TOTAL DEPTH
CASING WEIGHT	PLUG DEPTH
TUBING SIZE	PACKER DEPTH
TUBING WEIGHT	OPEN HOLE
PERFS & FORMATION	
575-95 (42)	Squirrel

STAGE	BBL'S PUMPED	INJ RATE	PROPPANT PPG	SAND / STAGE	PSI	
PAD	20	15.5				BREAKDOWN 1000
16-30		15.5		500#		START PRESSURE
12-20						END PRESSURE
12-20				1000#		BALL OFF PRESS
12-20 (8+7)						ROCK SALT PRESS
12-20				1		ISIP 550
12-20				6		5 MIN
12-20 (5+5) (3)				1000#		10 MIN
12-20 #5				200#		15 MIN
FLUSH CASING				1000#		MIN RATE
Release balls to TD.						MAX RATE
OVERFLUSH	10	15.5	TOTAL	4,000#		DISPLACEMENT 3.5
TOTAL BBL'S				SAND		

REMARKS:

Spotted 100 gal 15% HCl acid on pads

Location 1:40PM - 2:00PM

120 miles

AUTHORIZATION _____

TITLE _____

DATE 12-27-12

Terms and Conditions are printed on reverse side.



PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

CONSOLIDATED
Oil Well Services, LLC

TICKET NUMBER 54771

FIELD TICKET REF # 48125

LOCATION Thayer

FOREMAN Brett Busby

71st well

TREATMENT REPORT
FRAC & ACID

DATE	CUSTOMER #	WELL NAME & NUMBER	
12-27-12		Benjamin RR-27	
CUSTOMER		SECTION	TOWNSHIP
S&B Operating		9	96N
MAILING ADDRESS		RANGE	COUNTY
		33W	Cass
CITY	STATE	ZIP CODE	

TRUCK #	DRIVER	TRUCK #	DRIVER
524	T campis		
482	Mack		
522	Daniel		
619T91	George		

TYPE OF TREATMENT
Acid/gel + Frac
CHEMICALS
KelSurf-Biocide-Breaker
Acid-inhibitor-Sym Oil

WELL DATA	
CASING SIZE	TOTAL DEPTH
CASING WEIGHT	PLUG DEPTH
TUBING SIZE <u>2 7/8" EUEG</u>	PACKER DEPTH
TUBING WEIGHT	OPEN HOLE
PERFS & FORMATION	
<u>578-25 (24)</u>	<u>Squared</u>
<u>601-05 (2)</u>	
STAGE	BBL'S PUMPED
P4D	20
16-30	13.5
12-20	13.5
12-20	
12-20 (4) + (4)	
12-20	
12-20	
12-20 + (2)	=70
12-20	
12-20	
FLUSH CASING	5
Release balls - T.D.	
OVERFLUSH	10
TOTAL BOL'S	135

REMARKS:

Spotted 100 gal - 15% HCl acid on perfs

Location 2:15PM - 3:10PM

120 miles

AUTHORIZATION _____

TITLE _____

DATE 12-27-12

Terms and Conditions are printed on reverse side.



CONSOLIDATED
Oil Well Services, LLC

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

TREATMENT REPORT
FRAC & ACID

TICKET NUMBER 54772
FIELD TICKET REF # 48125
LOCATION Thayer
FOREMAN Brett Bushy

DATE	CUSTOMER #	WELL NAME & NUMBER	
12-27-12		Benjamin KR-31	
CUSTOMER			
S&B Operating			
MAILING ADDRESS			
CITY		STATE	ZIP CODE

WELL DATA		
CASING SIZE		TOTAL DEPTH
CASING WEIGHT		PLUG DEPTH
TUBING SIZE <u>2 7/8 DEUE</u>		PACKER DEPTH
TUBING WEIGHT		OPEN HOLE
PERFS & FORMATION		
<u>552-62</u>		<u>Squirrels</u>
<u>521-97</u>	(5)	

STAGE	BBL'S PUMPED	INJ RATE	PROPPANT PPG	SAND / STAGE	PSI	
PAD						
16-30	20	15.8				BREAKDOWN 900
12-20 Balbuk		15.2	5-1.0	500#		START PRESSURE
12-20		15.2	1.0			END PRESSURE
12-20 (10)+(5)+(5)			2.0	1000#		BALL OFF PRESS
12-20			2.5			ROCK SALT PRESS
12-20			7.0	1		ISIP 450
12-20 (5)+(3)+(2)			2.0	1500#		5 MIN
12-20			1.5	1		10 MIN
12-20			1.0	1		15 MIN
FLUSH CASING	5		2.0	1500#		MIN RATE
Release ball + T.D.				TOTAL 4,500#		MAX RATE
OVER FLUSH	10			SAND		DISPLACEMENT 3.5
TOTAL BBL'S	165					

REMARKS:

Spotted 100 gal - 15% HCl acid on parts

Location 4:00PM - 5:00PM

120 miles

AUTHORIZATION _____ TITLE _____
Terms and Conditions are printed on reverse side.

DATE 12-27-12



STATE OF MISSOURI
MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM
WELL LOCATION PLAT

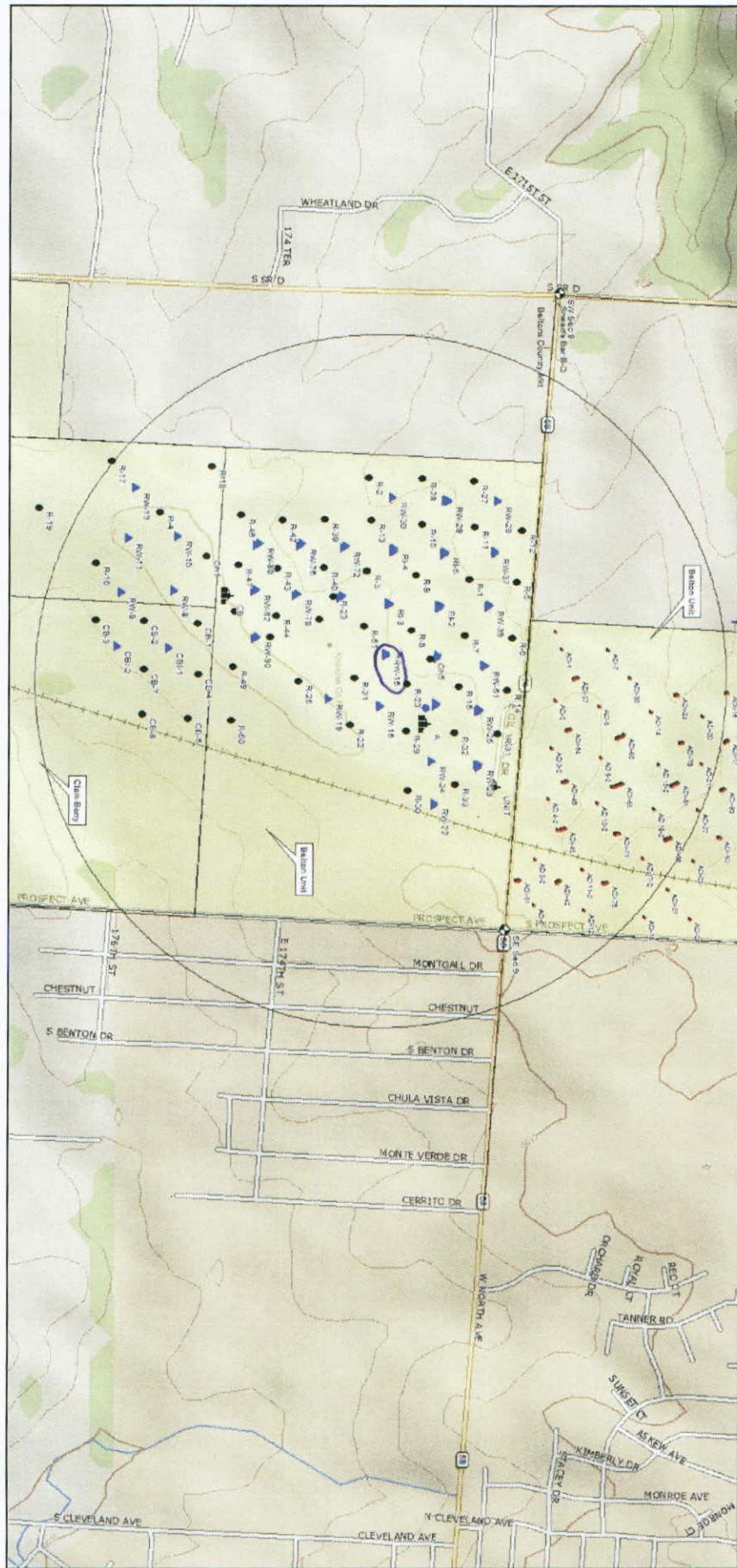
FORM OGC-4

OWNER'S NAME Kansas Resource Exploration and Development, LLC	
LEASE NAME Belton Unit RW-15	COUNTY Cass
WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES) 1300 <input checked="" type="checkbox"/> ft. from <input checked="" type="checkbox"/> North <input type="checkbox"/> South from section line 2265 <input checked="" type="checkbox"/> ft. from <input checked="" type="checkbox"/> East <input type="checkbox"/> West from section line	
WELL LOCATION Sec. 16 Township 46 North Range 33 <input type="checkbox"/> East <input checked="" type="checkbox"/> West LATITUDE N38 48' 49.717"	
<p>A hand-drawn plat map of Section 16. The map shows a grid of 36 smaller squares. A vertical line is drawn through the center of the section, and a horizontal line is drawn across the center. The intersection of these lines is marked with a small circle. Handwritten text above the grid indicates coordinates: LATITUDE N38 48' 49.717" and LONGITUDE W94 34' 29.190". To the right of the grid, there are handwritten labels: "1300' FLL" and "1300' FNL" with arrows pointing towards the top edge of the grid; "RW-15" and "RW-55" with arrows pointing towards the bottom edge; and "2265' ELL" with an arrow pointing towards the right edge. A large letter "N" with an arrow pointing upwards is located on the left side of the grid. The word "Sec 16" is written in the center of the grid area.</p>	
REMARKS Plat Map Scale - 1 Square = 660 feet	
INSTRUCTIONS On the above plat, show distance of the proposed well from the two nearest section lines, the nearest lease line, and from the nearest well on the same lease completed in or drilling to the same reservoir. Do not confuse survey lines with lease lines. See rule 10 CSR 50-2.030 for survey requirements. Lease lines must be marked.	
REMIT TWO (2) COPIES TO: GEOLOGICAL SURVEY PROGRAM PO BOX 250, ROLLA, MO 65402-0250 (573) 368-2143 ONE (1) COPY WILL BE RETURNED	REGISTERED LAND SURVEYOR NUMBER



1/2 mile Radios

XMap® 7



Data use subject to license.

© DeLorme. XMap® 7.

www.delorme.com

MN (1.9° E)
0 600 1200 1800 2400 3000 ft
Data Zoom 14-1

AREA OF REVIEW WELLS (1/2 MILE RADIUS AROUND WELL) THAT PENETRATE THE INJECTION INTERVAL

INSTRUCTIONS

In the grid below, place the descriptions of area of review wells (1/2 mile radius around well) of public record that penetrate the proposed injection zone. Complete the following: lease name, well number, location, owner, depth in feet, type of well (Oil = O, Gas = G, Water = W, Injection = I, Strat Test = S, Unknown = U, Other - specify), date spudded, date completed, and construction of the well. Give a brief but accurate description of the well's construction including all plugging and/or completion of information, detailing the cement, casing, and subsurface casing information.

LEASE	WELL NO.	LOCATION	OWNER	DEPTH	TYPE	DATE SPUNDED	DATE COMPLETED	CONSTRUCTION
Belton Unit	R-1	569 FROM (S) SEC LINE 2412 FROM (E) SEC LINE SEC 16 T 46 N R 33W	K.R.E.D.	619'	O	04/08/1999	04/13/1999	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	R-2	489 FROM (S) SEC LINE 1624 FROM (E) SEC LINE SEC 16 T 46 N R 33W	K.R.E.D.	600'	O	06/04/1999	06/10/1999	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	R-3	433 FROM (S) SEC LINE 2423 FROM (E) SEC LINE SEC 16 T 46 N R 33W	K.R.E.D.	665'	O	02/29/2000	03/02/2000	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	R-4	2322 FROM (S) SEC LINE 2013 FROM (E) SEC LINE SEC 16 T 46 N R 33W	K.R.E.D.	680'	O	03/02/2000	03/07/2000	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	R-5	168 FROM (S) SEC LINE 2406 FROM (E) SEC LINE SEC 16 T 46 N R 33W	K.R.E.D.	639'	O	04/23/2000	04/25/2000	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	R-6	171 FROM (S) SEC LINE 2890 FROM (E) SEC LINE SEC 16 T 46 N R 33W	K.R.E.D.	608'	O	04/27/2000	04/28/2000	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	R-7	571 FROM (S) SEC LINE 2901 FROM (E) SEC LINE SEC 16 T 46 N R 33W	K.R.E.D.	646'	O	05/01/2000	05/02/2000	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	R-8	1023 FROM (S) SEC LINE 2888 FROM (E) SEC LINE SEC 16 T 46 N R 33W	K.R.E.D.	655'	O	05/05/2000	05/08/2000	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	R-9	1008 FROM (S) SEC LINE 2418 FROM (E) SEC LINE SEC 16 T 46 N R 33W	K.R.E.D.	651'	O	05/03/2000	05/05/2000	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump

AREA OF REVIEW WELLS (1/2 MILE RADIUS AROUND WELL) THAT PENETRATE THE INJECTION INTERVAL

INSTRUCTIONS

In the grid below, place the descriptions of area of review wells (1/2 mile radius around well) of public record that penetrate the proposed injection zone. Complete the following: lease name, well number, location, owner, depth in feet, type of well (Oil = O, Gas = G, Water = W, Injection = I, Strat Test = S, Unknown = U, Other specify), date spudded, date completed, and construction of the well. Give a brief but accurate description of the well's construction including all plugging and/or completion of information, detailing the cement, casing, and subsurface casing information.

LEASE	WELL NO.	LOCATION	OWNER	DEPTH	TYPE	DATE SPUNDED	DATE COMPLETED	CONSTRUCTION
Belton Unit	R-10	1805 FROM (S) SEC LINE 1820 FROM (E) SEC LINE	K.R.E.D.	627'	O	05/15/2000	05/16/2000	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	R-11	SEC 16 T 46 N R 33W 567 FROM (E) SEC LINE	K.R.E.D.	626'	O	05/10/2000	05/12/2000	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	R-12	1816 FROM (E) SEC LINE 1821 FROM (E) SEC LINE	K.R.E.D.	642'	O	05/16/2000	05/18/2000	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	R-13	SEC 16 T 46 N R 33W 183 FROM (E) SEC LINE	K.R.E.D.	620'	O	05/22/2000	05/24/2000	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	R-14	174 FROM (S) SEC LINE 3330 FROM (E) SEC LINE	K.R.E.D.	637'	O	09/17/2001	09/19/2001	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	R-15	SEC 16 T 46 N R 33W 3335 FROM (E) SEC LINE	K.R.E.D.	621'	O	12/15/2000	12/20/2000	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	R-16	3338 FROM (E) SEC LINE 350 FROM (S) SEC LINE	K.R.E.D.	652.5'	O	10/13/2003	10/15/2003	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	R-17	SEC 16 T 46 N R 33W 361 FROM (E) SEC LINE	K.R.E.D.	686'	O	01/29/2004	01/30/2004	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	R-18	360 FROM (S) SEC LINE 1637 FROM (E) SEC LINE	K.R.E.D.	914.5'	O	01/07/2004	01/09/2004	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump

AREA OF REVIEW WELLS (1/2 MILE RADIUS AROUND WELL) THAT PENETRATE THE INJECTION INTERVAL

INSTRUCTIONS

In the grid below, place the descriptions of area of review wells (1/2 mile radius around well) of public record that penetrate the proposed injection zone. Complete the following: lease name, well number, location, owner, depth in feet, type of well (Oil = O, Gas = G, Water = W, Injection = I, Strat Test = S, Unknown = U, Other - specify), date spudded, date completed, and construction of the well. Give a brief but accurate description of the well's construction including all plugging and/or completion of information, detailing the cement, casing, and subsurface casing information.

LEASE	WELL NO.	LOCATION	OWNER	DEPTH	TYPE	DATE SPUNNED	DATE COMPLETED	CONSTRUCTION
Bellon Unit	R-19	4132 FROM (S) SEC LINE 2010 FROM (E) (W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	621'	O	02/12/2004	02/13/2004	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Bellon Unit	R-20	4220 FROM (N) (S) SEC LINE 2045 FROM (E) (W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	661'	O	01/18/2008	01/22/2008	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Bellon Unit	R-21	3160 FROM (N) (S) SEC LINE 2045 FROM (E) (W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	635'	O	01/14/2008	01/16/2008	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Bellon Unit	R-22	3162 FROM (N) (S) SEC LINE 1602 FROM (E) (W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	660'	O	12/04/2008	N/A	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Bellon Unit	R-23	3220 FROM (N) (S) SEC LINE 2425 FROM (E) (W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	660'	O	U	N/A	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Bellon Unit	R-24	3320 FROM (N) (S) SEC LINE 2415 FROM (E) (W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	658'	O	01/25/2008	N/A	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Bellon Unit	R-25	3320 FROM (N) (S) SEC LINE 3013 FROM (E) (W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	660'	O	U	N/A	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Bellon Unit	Ri-1	368 FROM (N) (S) SEC LINE 2164 FROM (E) (W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	623'	Plugged	07/26/2000	08/31/2000	4 1/2" casing cemented to surface Plugged 4 1/2" to surface Cemented 4 1/2" to surface
Bellon Unit	Ri-2	795 FROM (N) (S) SEC LINE 2053 FROM (E) (W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	627'	I	U	U	4 1/2" casing cemented to surface

AREA OF REVIEW WELLS (1/2 MILE RADIUS AROUND WELL) THAT PENETRATE THE INJECTION INTERVAL

INSTRUCTIONS

In the grid below, place the descriptions of area of review wells (1/2 mile radius around well) of public record that penetrate the proposed injection zone. Complete the following: lease name, well number, location, owner, depth in feet, type of well (Oil = O, Gas = G, Water = W, Injection = I, Strat Test = S, Unknown = U, Other - specify), date spudded, date completed, and construction of the well. Give a brief but accurate description of the well's construction including all plugging and/or completion of information, detailing the cement, casing, and subsurface casing information.

LEASE	WELL NO.	LOCATION	OWNER	DEPTH	TYPE	DATE SPUNDED	DATE COMPLETED	CONSTRUCTION
Bellon Unit	RI-3	<u>219</u> FROM (S) SEC LINE <u>2072</u> FROM (E) (W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	635'	I	U	U	4 1/2" casing cemented to surface
Bellon Unit	RI-4	<u>207</u> FROM (S) SEC LINE <u>202</u> FROM (E) (W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	641'	I	08/25/2000	08/29/2000	4 1/2" casing cemented to surface
Bellon Unit	RI-5	<u>790</u> FROM (S) SEC LINE <u>219</u> FROM (E) (W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	637'	I	U	U	4 1/2" casing cemented to surface
Bellon Unit	RI-6	<u>367</u> FROM (N) (S) SEC LINE <u>2187</u> FROM (E) (W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	644'	Plugged	V	V	4 1/2" casing cemented to surface Plugged out, 1 1/2" - Squeezed
Bellon Unit	WSW-1	<u>843</u> FROM (N) (S) SEC LINE <u>3529</u> FROM (E) (W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	891'	W	04/16/2001	04/14/2001	Squeezed
Bellon Unit	C-18	<u>110</u> FROM (N) (S) SEC LINE <u>374</u> FROM (E) (W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	571'	Plugged	V	V	4 1/2" casing cemented to surface
Bellon Unit	RW-7	<u>3115</u> FROM (S) SEC LINE <u>2043</u> FROM (N) (S) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	638'	Plugged	02/10/2004	02/11/2004	Plugged out, 1 1/2" - Squeezed
Bellon Unit	RW-8	<u>3505</u> FROM (N) (S) SEC LINE <u>2174</u> FROM (E) (W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	641.5'	I	02/12/2004	02/13/2004	4 1/2" casing cemented to surface
Bellon Unit	RW-9	<u>3505</u> FROM (N) (S) SEC LINE <u>2174</u> FROM (E) (W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	647.5'	I	01/13/2004	01/15/2004	4 1/2" casing cemented to surface

AREA OF REVIEW WELLS (1/2 MILE RADIUS AROUND WELL) THAT PENETRATE THE INJECTION INTERVAL

INSTRUCTIONS

In the grid below, place the descriptions of area of review wells (1/2 mile radius around well) of public record that penetrate the proposed injection zone. Complete the following: lease name, well number, location, owner, depth in feet, type of well (Oil = O, Gas = G, Water = W, Injection = I, Strat Test = S, Unknown = U, Other - specify), date spudded, date completed, and construction of the well. Give a brief but accurate description of the well's construction including all plugging and/or completion of information, detailing the cement, casing, and subsurface casing information.

LEASE	WELL NO.	LOCATION	OWNER	DEPTH	TYPE	DATE SPUNDED	DATE COMPLETED	CONSTRUCTION
Belton Unit	RW-10	202 FROM (N) SEC LINE 223 FROM (E) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	678'	I	02/02/2004	02/03/2004	4 1/2" casing cemented to surface
Belton Unit	RW-11	211 FROM (S) SEC LINE 233 FROM (E) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	652'	I	02/04/2004	02/06/2004	4 1/2" casing cemented to surface
Belton Unit	RW-13	212 FROM (S) SEC LINE 232 FROM (E) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	697'	I	02/06/2004	02/09/2004	4 1/2" casing cemented to surface
Belton Unit	RW-15	218D FROM (N) SEC LINE 226B FROM (E) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	660'	I	11/26/2008	N/A	4 1/2" casing cemented to surface
Belton Unit	RW-16	219D FROM (N) SEC LINE 225B FROM (E) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	660'	I	12/02/2008	N/A	4 1/2" casing cemented to surface
Belton Unit	RW-19	215D FROM (N) SEC LINE 225B FROM (E) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	661'	I	12/08/2008	N/A	4 1/2" casing cemented to surface
Belton Unit	AD-1	220 FROM (N) SEC LINE 242D FROM (E) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	615'	O	12/03/2007	01/04/2008	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	AD-2	220 FROM (N) SEC LINE 2000 FROM (E) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	657"	O	12/06/2007	12/10/2007	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	AD-3	21A FROM (N) SEC LINE 238D FROM (E) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	637'	O	08/31/1987	U	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump

AREA OF REVIEW WELLS (1/2 MILE RADIUS AROUND WELL) THAT PENETRATE THE INJECTION INTERVAL

INSTRUCTIONS

In the grid below, place the descriptions of area of review wells (1/2 mile radius around well) of public record that penetrate the proposed injection zone. Complete the following: lease name, well number, location, owner, depth in feet, type of well (Oil = O, Gas = G, Water = W, Injection = I, Strat Test = S, Unknown = U, Other - specify), date spudded, date completed, and construction of the well. Give a brief but accurate description of the well's construction including all plugging and/or completion of information, detailing the cement, casing, and subsurface casing information.

LEASE	WELL NO.	LOCATION	OWNER	DEPTH	TYPE	DATE SPUNDED	DATE COMPLETED	CONSTRUCTION
Bellton Unit	AD-4	220 FROM (N) SEC LINE 425 FROM (E) SEC LINE SEC. 9 T 46 N.R. 33W	K.R.E.D.	666'	O	07/14/1987	07/16/1987	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Bellton Unit	AD-5	220 FROM (N) SEC LINE 416 FROM (E) SEC LINE SEC. 9 T 46 N.R. 33W	K.R.E.D.	679'	O	06/21/1987	06/25/1987	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Bellton Unit	AD-6	201 FROM (N) SEC LINE 510 FROM (E) SEC LINE SEC. 9 T 46 N.R. 33W	K.R.E.D.	708'	O	01/31/2008	02/19/2008	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Bellton Unit	AD-7	54 FROM (N) SEC LINE 228 FROM (E) SEC LINE SEC. 9 T 46 N.R. 33W	K.R.E.D.	630'	O	12/12/2007	12/14/2007	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Bellton Unit	AD-8	340 FROM (E) SEC LINE SEC. 9 T 46 N.R. 33W	K.R.E.D.	622'	O	05/14/1999	05/27/1999	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Bellton Unit	AD-9	644 FROM (N) SEC LINE 385 FROM (E) SEC LINE SEC. 9 T 46 N.R. 33W	K.R.E.D.	662'	Plugged	08/25/1987	1987	4 1/2" casing cemented to surface Squeezed cement into formation to surface on 04/04/2012
Bellton Unit	AD-10	662 FROM (N) SEC LINE 423 FROM (E) SEC LINE SEC. 9 T 46 N.R. 33W	K.R.E.D.	659'	O	05/25/1987	07/21/1987	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Bellton Unit	AD-11	621 FROM (N) SEC LINE 478 FROM (E) SEC LINE SEC. 9 T 46 N.R. 33W	K.R.E.D.	665'	Plugged	1987	1987	4 1/2" casing cemented to surface Squeezed cement into formation to surface on 03/19/2012
Bellton Unit	AD-12	120 FROM (N) SEC LINE 380 FROM (E) SEC LINE SEC. 9 T 46 N.R. 33W	K.R.E.D.	710'	O	01/23/2008	02/26/2008	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump

AREA OF REVIEW WELLS (1/2 MILE RADIUS AROUND WELL) THAT PENETRATE THE INJECTION INTERVAL

INSTRUCTIONS

In the grid below, place the descriptions of area of review wells (1/2 mile radius around well) of public record that penetrate the proposed injection zone. Complete the following: lease name, well number, location, owner, depth in feet, type of well (Oil = O, Gas = G, Water = W, Injection = I, Strat Test = S, Unknown = U, Other - specify), date spudded, date completed, and construction of the well. Give a brief but accurate description of the well's construction including all plugging and/or completion of information, detailing the cement, casing, and subsurface casing information.

LEASE	WELL NO.	LOCATION	OWNER	DEPTH	TYPE	DATE SPUNDED	DATE COMPLETED	CONSTRUCTION
Belton Unit	AD-13	<u>110</u> FROM (N) SEC LINE <u>2422</u> FROM (E) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	700'	Plugged	12/21/2007	N/A	Cemented from bottom to top on 12/27/2007
Belton Unit	AD-14	<u>1067</u> FROM (N) SEC LINE <u>2405</u> FROM (E) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	609'	O	04/21/1999	05/13/1999	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	AD-15	<u>210</u> FROM (N) SEC LINE <u>367</u> FROM (E) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	617'	O	11/13/1989	11/14/1989	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	AD-16	<u>100</u> FROM (N) SEC LINE <u>4225</u> FROM (E) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	666'	Plugged	07/23/1987	U-1987	4 1/2" casing cemented to surface Squeezed cement into formation to surface on 04/04/2012
Belton Unit	AD-17	<u>105</u> FROM (N) SEC LINE <u>405</u> FROM (E) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	647'	O	U	U	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	AD-18	<u>110</u> FROM (N) SEC LINE <u>300</u> FROM (E) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	676.5'	O	01/02/2008	02/26/2008	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	AD-21	<u>535</u> FROM (N) SEC LINE <u>310</u> FROM (E) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	656'	O	09/11/2003	09/12/2003	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	AD-22	<u>539</u> FROM (N) SEC LINE <u>4722</u> FROM (E) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	650'	O	06/13/1999	06/18/1999	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	AD-23	<u>241</u> FROM (N) SEC LINE <u>4744</u> FROM (E) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	644'	O	09/09/2003	09/11/2003	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump

AREA OF REVIEW WELLS (1/2 MILE RADIUS AROUND WELL) THAT PENETRATE THE INJECTION INTERVAL

INSTRUCTIONS

In the grid below, place the descriptions of area of review wells ('1/2 mile radius around well) of public record that penetrate the proposed injection zone. Complete the following: lease name, well number, location, owner, depth in feet, type of well (Oil = O, Gas = G, Water = W, Injection = I, Strat Test = S, Unknown = U, Other - specify), date spudded, date completed, and construction of the well. Give a brief but accurate description of the well's construction including all plugging and/or completion of information, detailing the cement, casing, and subsurface casing information.

LEASE	WELL NO.	LOCATION	OWNER	DEPTH	TYPE	DATE SPUNDED	DATE COMPLETED	CONSTRUCTION
Belton Unit	AD-24	<u>SP</u> FROM (N)(S) SEC LINE 300' FROM (E)(W) SEC LINE SEC 9 T. 46 N.R. 33W	K.R.E.D.	672.5	O	12/27/2007	02/06/2008	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	AD-28	<u>111</u> FROM (N)(S) SEC LINE 415' FROM (E)(W) SEC LINE SEC 9 T. 46 N.R. 33W	K.R.E.D.	629'	O	07/08/1999	07/14/1999	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	AD-29	<u>112</u> FROM (N)(S) SEC LINE 412' FROM (E)(W) SEC LINE SEC 9 T. 46 N.R. 33W	K.R.E.D.	625'	O	06/18/1999	07/07/1999	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	ADI-18	<u>113</u> FROM (N)(S) SEC LINE 400' FROM (E)(W) SEC LINE SEC 9 T. 46 N.R. 33W	K.R.E.D.	651.5'	I	10/09/2003	10/10/2003	4 1/2" casing cemented to surface
Belton Unit	ADI-19	<u>114</u> FROM (N)(S) SEC LINE 393' FROM (E)(W) SEC LINE SEC 9 T. 46 N.R. 33W	K.R.E.D.	654.5'	I	10/07/2003	10/08/2003	4 1/2" casing cemented to surface
Belton Unit	ADI-24	<u>115</u> FROM (N)(S) SEC LINE 382' FROM (E)(W) SEC LINE SEC 9 T. 46 N.R. 33W	K.R.E.D.	662'	I	09/16/2003	09/17/2003	4 1/2" casing cemented to surface
Belton Unit	ADI-25	<u>116</u> FROM (N)(S) SEC LINE 373' FROM (E)(W) SEC LINE SEC 9 T. 46 N.R. 33W	K.R.E.D.	651.5'	I	09/12/2003	09/15/2003	4 1/2" casing cemented to surface
Belton Unit	ADI-26	<u>117</u> FROM (N)(S) SEC LINE 363' FROM (E)(W) SEC LINE SEC 9 T. 46 N.R. 33W	K.R.E.D.	650.5'	I	09/17/2003	09/19/2003	4 1/2" casing cemented to surface
Belton Unit	ADI-27	<u>118</u> FROM (N)(S) SEC LINE 350' FROM (E)(W) SEC LINE SEC 9 T. 46 N.R. 33W	K.R.E.D.	674.1'	I	01/04/2008	04/16/2008	4 1/2" casing cemented to surface

AREA OF REVIEW WELLS (1/2 MILE RADIUS AROUND WELL) THAT PENETRATE THE INJECTION INTERVAL

INSTRUCTIONS

In the grid below, place the descriptions of area of review wells (1/2 mile radius around well) of public record that penetrate the proposed injection zone. Complete the following: lease name, well number, location, owner, depth in feet, type of well (Oil = O, Gas = G, Water = W, Injection = I, Strat Test = S, Unknown = U, Other - specify), date spudded, date completed, and construction of the well. Give a brief but accurate description of the well's construction including all plugging and/or completion of information, detailing the cement, casing, and subsurface casing information.

LEASE	WELL NO.	LOCATION	OWNER	DEPTH	TYPE	DATE SPUNDED	DATE COMPLETED	CONSTRUCTION
Belton Unit	ADI-30	880 FROM (N) SEC LINE 880 FROM (W) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	627.7'	I	12/19/2007	04/16/2008	4 1/2" casing cemented to surface
Belton Unit	ADI-31	880 FROM (N) SEC LINE 880 FROM (E) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	633'	I	05/27/1999	06/04/1999	4 1/2" casing cemented to surface
Belton Unit	ADI-32	871 FROM (N) SEC LINE 871 FROM (E) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	649'	I	V	V	4 1/2" casing cemented to surface
Belton Unit	ADI-33	881 FROM (N) SEC LINE 881 FROM (E) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	642'	I	V	V	4 1/2" casing cemented to surface
Belton Unit	ADI-34	879 FROM (N) SEC LINE 879 FROM (E) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	663	I	V	V	4 1/2" casing cemented to surface
Belton Unit	ADI-37	880 FROM (N) SEC LINE 880 FROM (E) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	618.2'	I	12/13/2007	04/16/2008	4 1/2" casing cemented to surface
Belton Unit	ADI-38	946 FROM (N) SEC LINE 946 FROM (E) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	668.9'	I	12/17/2007	04/16/2008	4 1/2" casing cemented to surface
Belton Unit	ADI-39	441 FROM (N) SEC LINE 441 FROM (E) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	631'	I	V	V	4 1/2" casing cemented to surface
Belton Unit	ADI-40	441 FROM (N) SEC LINE 441 FROM (E) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	664'	I	V	V	4 1/2" casing cemented to surface

AREA OF REVIEW WELLS (1/2 MILE RADIUS AROUND WELL) THAT PENETRATE THE INJECTION INTERVAL

INSTRUCTIONS

In the grid below, place the descriptions of area of review wells (1/2 mile radius around well) of public record that penetrate the proposed injection zone. Complete the following: lease name, well number, location, owner, depth in feet, type of well (Oil = O, Gas = G, Water = W, Injection = I, Strat Test = S, Unknown = U, Other - specify), date spudded, date completed, and construction of the well. Give a brief but accurate description of the well's construction including all plugging and/or completion of information, detailing the cement, casing, and subsurface casing information.

LEASE	WELL NO.	LOCATION	OWNER	DEPTH	TYPE	DATE SPUNDED	DATE COMPLETED	CONSTRUCTION
Belton Unit	ADI-41	442 FROM (N)(S) SEC LINE 1909 FROM (E)(W) SEC LINE SEC. 9 T. 46 N.R. 33W	K.R.E.D.	600' est	I	V	V	4 1/2" casing cemented to surface
Belton Unit	OH-1	2015 FROM (N)(S) SEC LINE 2410 FROM (E)(W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	600' est	O	V	V	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	OH-2	2021 FROM (N)(S) SEC LINE 3051 FROM (E)(W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	600' est	O	V	V	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	OH-3	2327 FROM (N)(S) SEC LINE 3408 FROM (E)(W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	600' est	O	V	V	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	OH-4	2328 FROM (N)(S) SEC LINE 3409 FROM (E)(W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	600' est	O	V	V	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	OH-5	833 FROM (N)(S) SEC LINE 3124 FROM (E)(W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	600' est	O	V	V	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Belton Unit	OH-6	919 FROM (N)(S) SEC LINE 3126 FROM (E)(W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	600' est	Plugged	V	V	Squeezed cement into formation to surface
Belton Unit	OH-7	753 FROM (N)(S) SEC LINE 3126 FROM (E)(W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	600' est	Plugged	V	V	Squeezed cement into formation to surface
Belton Unit	OH-8	138 FROM (N)(S) SEC LINE 2221 FROM (E)(W) SEC LINE SEC. 16 T. 46 N.R. 33W	K.R.E.D.	600' est	Plugged	V	V	Squeezed cement into formation to surface

AREA OF REVIEW WELLS (1/2 MILE RADIUS AROUND WELL) THAT PENETRATE THE INJECTION INTERVAL

INSTRUCTIONS

In the grid below, place the descriptions of area of review wells (1/2 mile radius around well) of public record that penetrate the proposed injection zone. Complete the following: lease name, well number, location, owner, depth in feet, type of well (Oil = O, Gas = G, Water = W, Injection = I, Strat Test = S, Unknown = U, Other - specify), date spudded, date completed, and construction of the well. Give a brief but accurate description of the well's construction including all plugging and/or completion of information, detailing the cement, casing, and subsurface casing information.

LEASE	WELL NO.	LOCATION	OWNER	DEPTH	TYPE	DATE SPUNDED	DATE COMPLETED	CONSTRUCTION
Belton Unit	OH-9	604 FROM (N)(S) SEC LINE 522 FROM (E)(W) SEC LINE	K.R.E.D.	600' est	Plugged	U	U	Squeezed cement into formation to surface
Belton Unit	UK-1	K520 FROM (N)(S) SEC LINE 320 FROM (E)(W) SEC LINE	K.R.E.D.	U	Plugged	U	U	4 1/2" casing cemented to surface Squeezed cement into formation to surface on 04/17/2012
Belton Unit	UK-2	K521 FROM (N)(S) SEC LINE 321 FROM (E)(W) SEC LINE	K.R.E.D.	U	Plugged	U	U	4 1/2" casing cemented to surface Squeezed cement into formation to surface on 04/17/2012
Belton Unit	UK-3	K522 FROM (N)(S) SEC LINE 322 FROM (E)(W) SEC LINE	K.R.E.D.	U	O	U	U	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Clark-Berry	CB-1	K523 FROM (N)(S) SEC LINE 323 FROM (E)(W) SEC LINE	K.R.E.D.	625'	O	03/22/1999	U	2 7/8" with 1" tubing and insert pump
Clark-Berry	CB-2	K524 FROM (N)(S) SEC LINE 324 FROM (E)(W) SEC LINE	K.R.E.D.	625'	O	U	U	2 7/8" with 1" tubing and insert pump
Clark-Berry	CB-3	K525 FROM (N)(S) SEC LINE 325 FROM (E)(W) SEC LINE	K.R.E.D.	625'	O	03/25/1999	03/30/1999	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Clark-Berry	CB-4	K526 FROM (N)(S) SEC LINE 326 FROM (E)(W) SEC LINE	K.R.E.D.	619'	O	03/30/1999	04/02/1999	4 1/2" casing cemented to surface 2 3/8" tubing 3/4" rods and insert pump
Clark-Berry	CBI-1	K527 FROM (N)(S) SEC LINE 327 FROM (E)(W) SEC LINE	K.R.E.D.	629'	I	03/22/1999	03/25/1999	4 1/2" casing cemented to surface



STATE OF MISSOURI
MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM
INJECTION WELL SCHEMATIC

OGC-11

COUNTY Cass	PERMIT NUMBER 20830	OPERATOR Kansas Resource Exploration & Development LLC
----------------	-------------------------------	---

Belton Unit RW-15

water injected directly down 2 $\frac{7}{8}$ " casing.

20' of 7" surface pipe cemented to surface w/ 8 sxs of portland cement.

2 $\frac{7}{8}$ " casing cemented to surface w/ 100 sxs of oil well cement.

2 $\frac{7}{8}$ " casing set to 650' w/ float shoe and rubber plug.

T.D. drilled to 650' w/ 5 $\frac{7}{8}$ " bit.

* perforations approx. 550' to 600', 3 spf.
(middle squirrel - 550-580)
(lower squirrel - 580-600)

* Middle and lower squirrel sections confined by shale + limestone

INSTRUCTIONS ON THE ABOVE SPACE DRAW A NEAT, ACCURATE SCHEMATIC DIAGRAM OF THE APPLICANT INJECTION WELL. INCLUDING THE FOLLOWING: CONFIGURATION OF WELLHEAD. TOTAL DEPTH OR PLUG BACK TOTAL DEPTH. DEPTH OF ALL INJECTION OR DISPOSAL INTERVALS. AND THEIR FORMATION NAMES. LITHOLOGY OF ALL FORMATIONS PENETRATED. DEPTHS OF THE TOPS AND BOTTOMS OF ALL CASING AND TUBING. SIZE AND GRADE OF ALL CASING AND TUBING. AND THE TYPE AND DEPTH OF PACKER. DEPTH, LOCATION, AND TYPE OF ALL CEMENT. DEPTH OF ALL PERFORATIONS AND SQUEEZE JOBS. AND GEOLOGIC NAME AND DEPTH TO BOTTOM OF ALL UNDERGROUND SOURCES OF DRINKING WATER WHICH MAY BE AFFECTED BY THE INJECTION. USE BACK IF ADDITIONAL SPACE IS NEEDED. OR ATTACH SHEET

Well Schematic, Continued

The surface casing is 7" in diameter and is new, limited service grade pipe. The 7" is drifted and tested to 7,000 lbs. and weighs 17 lbs. per foot. The surface casing will be set to a minimum depth of 20 feet and extend 6 inches above the surface. Approximately 6 sacks of Portland cement will be circulated to surface and will secure the well and ensure the contents of the well bore is sealed off from sources of drinking water. The production casing is used 2 7/8" EUU upset, drifted and tested to 7,000 lbs. No tubing will be ran in the injection wells, the injection fluid will be injected directly down the 2 7/8" casing. The total depth of the well will be approximately 700 feet drilled with a 5 7/8" bit. A 2 7/8" flapper type float shoe will be set at the base of the 2 7/8" casing pipe (695 feet) with centralizers installed to center the casing inside the well bore for better cement bonding. The 2 7/8" casing will be cemented from 700 feet to surface using a 2 7/8" rubber plug for displacing the cement. Approximately 125 sacks of high-grade Oil Well cement will be used to cement all wells. This cement will ensure that no contents of the pipe will leave the well bore. The top of the 2 7/8" casing will extend approximately one foot above ground level. After the cement has cured and effectively bonded to the 2 7/8" casing, perforations will be made in the Squirrel Sandstone formation from approximately 550-600 feet, depending on where the oil sand is present at this particular location. Wells will be shot with 3 perforations per foot where the squirrel sandstone oil reservoir is present and capable of water injection. No water sources are present at this depth and will not be affected by these perforations or the injection. The relevant sources of drinking water are located less than 20 feet below surface. The 7" surface pipe and durable Portland cement ensures these water sources will remain free from contamination from drilling and injection activity. Other sources of potential usable water may be present, however not always potable, in the Pennsylvanian and Mississippian formations located approximately 150 feet or deeper below the base of the Squirrel Sandstone.

The lithology of all formations penetrated by the wellbore are as follows:

<u>Formation</u>	<u>Total Depth (feet)</u>
Soil	0 – 2
Clay	2 – 4
Lime	4 – 16
Shale	16 – 42
Lime	42 – 54
Shale	54 – 64
Lime	64 – 83
Shale	83 – 113

Lime	113 – 116
Shale	116 – 142
Lime	142 – 173
Shale	173 – 183 (Slate 180 - 182)
Lime	183 – 203
Shale	203 - 205 (Slate 203 - 205)
Lime	205 - 208
Shale	208 – 211
Lime	211 – 217 (Top Pawnee Limestone)
Shale	217 - 399
Lime	399 – 403 (Base Pawnee Limestone)
Shale	403 - 419 (Labette Shale)
Lime	419 - 421
Shale	421 - 438 (Top Fort Scott)
Lime	438 - 442 (Blackjack Creek Limestone)
Shale	442 - 556 (Summit Coal) (Base Fort Scott)
Lime	556 - 557
Shale	557 - 562
Oil Sand	562 - 592 (Squirrel Sandstone)
Shale	592 - 593 (Top Verdigris)
Lime	593 - 594 (Ardmore Limestone)
Shale	594 - 700 (Oakley Shale)

AFFIDAVIT OF PUBLICATION

STATE OF MISSOURI
COUNTY OF CASS ss.

I, Janis Anslinger, being duly sworn according to law, state that I am the Classified Ad Manager of the Cass County Democrat-Missourian, a weekly newspaper of general circulation in the County of Cass, State of Missouri, where located; which newspaper has been admitted to the Post Office as periodical class matter in the City of Harrisonville, Missouri, the city of publication; which newspaper has been published regularly and consecutively for a period of three years and has a list of bonafide subscribers, voluntarily engaged as such who have paid or agreed to pay a stated price for a subscription for a definite period of time, and that such newspaper has complied with the provisions of Section 493.050, Revised Statutes of Missouri 2000, and Section 59.310, Revised Statutes of Missouri 2000. The affixed notice appeared in said newspaper in the following consecutive issues:

1st Insertion: Vol. 134 No. 39, 11 day of July 20 14.

2nd Insertion: Vol. _____ No. _____, _____ day of _____ 20 _____.
(Signature)

3rd Insertion: Vol. _____ No. _____, _____ day of _____ 20 _____.
(Signature)

4th Insertion: Vol. _____ No. _____, _____ day of _____ 20 _____.
(Signature)

5th Insertion: Vol. _____ No. _____, _____ day of _____ 20 _____.
(Signature)

Subscribed and sworn to before me on this 11 day of July, 20 14.
(Signature)

JULIE M. HICKS
My Commission Expires
June 12, 2017
Cass County
Commission #13727108



(Space above for recording information)

PUBLIC NOTICE

Kansas Resource Exploration & Development, LLC, 9393 W 110th St., Ste. 500, Overland Park, KS, 66210, has applied for 4 injection well permits to be drilled to an approximate depth of 650 feet. Saltwater will be injected into the Squirrel Sandstone formation for an Enhanced Oil Recovery Project at the following locations.

#RW-15 1,300' from N line/2,265' from E line, Section 16, Township 46N, Range 33W

#RW-16 1,300' from N line/1,825' from E line, Section 16, Township 46N, Range 33W

#CBI-1 2,255' from S line/2,255' from E line, Section 16, Township 46N, Range 33W

#CBI-2 1,815' from S line/2,255' from E line, Section 16, Township 46N, Range 33W

Written comments or requests for additional information regarding such wells should be directed within fifteen (15) days of this notice to the address below.

State Geologist Missouri
Oil & Gas Council
P.O. Box 250
Rolla, MO 65401
39-1tc